

**IN THE SPECIFICATION:**

**Please replace the following paragraph beginning on page 4, line 18, with the following paragraph which is marked-up to indicate the changes:**

---

Merge sorting, illustrated in Fig. 1B, is a known technique for producing a single sorted list from multiple ordered lists whose values are known a priori. For example, two lists 920 and 922 of known elements sorted in ascending order can be combined into a single sorted list 924 by repeatedly taking the smaller value from the ~~top~~ front of lists 920 and 922, and appending the smaller value to the end of list 924. This example can be extended to a set of  $n$  known values, which can be sorted by first dividing the set into  $n$  lists containing a single value each, then combining pairs of lists to produce  $n/2$  lists with two values each. Pairs of these lists are then merged, producing  $n/4$  lists with four values each. Continuing in this fashion eventually yields a single sorted list containing the original values, but in sorted order, as shown in Figure 1B. Merge sorting can also be implemented using three-way merging (that is, merging three sorted lists into a single sorted list in one step), rather than by using two-way merging. More generally,  $d$ -way merging can be used for any integer  $d > 1$ .

---